

Remarks

Claims 22-34, 36-42, 44 and 46 are now pending in this application. Applicant has amended claim 22 and added new claim 46 to clarify the present invention. Applicant respectfully requests favorable reconsideration of this application.

The Examiner rejected claims 22, 27, and 38 under 35 U.S.C. § 102(b) as being anticipated by U.S. patent 3,795,005 to Monser et al. The Examiner rejected claims 23 and 24 under 35 U.S.C. § 103(a) as being unpatentable over Monser et al. in view of U.S. patent 6,043,785 to Marino. The Examiner rejected claims 25, 26, and 37 under 35 U.S.C. § 103(a) as being unpatentable over Monser et al. in view of U.S. patent 5,801,660 to Ohtsuka et al. The Examiner rejected claims 28-34, 36, 39-42, and 44 under 35 U.S.C. § 103(a) as being unpatentable over Monser et al.

Monser et al. does not disclose the present invention as recited in claim 22 since, among other things, Monser et al. does not disclose a group antenna that includes a plurality of antenna radiating elements each including a body that includes a rotationally-symmetrical surface having an axis of rotation substantially perpendicular to a ground plane. The supports 39a-d are not equivalent to the body of the antenna recited in claim 22. The supports each have a surface that extends entirely around them. Additionally, the supports appear to each have a rectangular cross-section.

As a group, the supports might be considered to include a surface made up of a plurality

of rays. However, each support is a separate structure. If considered individually or as a group, the supports do not include a body that includes a rotationally-symmetrical surface having an axis of rotation substantially perpendicular to the ground plane. Therefore, Monser et al. does not disclose a plurality of antenna radiating elements each including a body that includes a rotationally-symmetrical surface having an axis of rotation substantially perpendicular to a ground plane.

Additionally, Monser et al. does not disclose a group antenna that includes a plurality of antenna radiating elements each including a body having a surface having a shape that tapers toward the axis of rotation with increasing distance from a ground plane. As discussed above, Monser et al. discloses a structure that includes a plurality of supports 39a-d. Even if the supports are angled toward one point, they do not individually or collectively define a shape that tapers toward the axis of rotation with increasing distance from a ground plane.

Individually, the supports each appear to have a cross-section that does not vary along its length, and, therefore, do not have a surface having a shape that tapers toward the axis of rotation with increasing distance from a ground plane. Collectively, since the individual supports each has an outward facing surface that does not vary along its length. Therefore, the collectively, the outward facing surfaces do not vary along their length. Therefore, even if the supports are closer together with increasing distance from the base 37', the shape of the surface does not taper. Therefore, Monser et al. does not disclose a body having a surface having a shape that tapers toward the axis of rotation with increasing distance from a ground plane.

Furthermore, Monser et al. does not disclose a group antenna that includes a plurality of antenna radiating elements each including a body having a surface covered with a metallic casing. The Examiner asserts that the wire winding 41 disclosed by Monser et al. is the radiator surface and the supports 39a-d are the body. The surface of the antenna body recited in claim 22 that is covered with a metallic casing is rotationally-symmetrical and has a shape that tapers toward the axis of rotation with increasing distance from a ground plane.

The Examiner asserts that the wire winding covers the body made up of supports 39a-d. Whether considered alone or in combination, the wire winding does not cover the surface of supports 39a-d. Additionally, the surface of the wire extends entirely about the wire and is not only on the surface of the wire facing away from the supports. Even if only the surface of the wire winding facing away from the supports were considered the surface covered with a metallic casing, the wire winding appears to have a round cross-section. Therefore, the wire winding would not have the surface recited in claim 22.

Furthermore, the helical structure of the wire winding is not rotationally symmetrical. Due to the nature of a helix, the winding is necessarily not the same on opposite sides of the axis of rotation. At best, the wire winding disclosed by Monser et al. includes a surface that is a helical strip. If the supports are considered to be the body of the structure disclosed by Monser et al. and the wire winding the surface covered by a metallic casing, as asserted by the Examiner and the wire winding does not cover the support, the "body" including the supports does not include the surface recited in claim 22. Therefore, Monser et al. does not disclose a body having a surface covered with a metallic casing where the surface is rotationally-symmetrical and tapers

toward an axis of rotation with increasing distance from a ground plane.

In view of the above, Monser et al. does not disclose all elements of the present invention as recited in claim 22 or 27 and 38, which depend from claim 22. Since Monser et al. does not disclose all elements of the present invention as recited in claims 22, 27, and 28, the present invention, as recited in claims 22, 27, and 28, is not properly rejected under 35 U.S.C. § 102(b). For an anticipation rejection under 35 U.S.C. § 102(b) no difference may exist between the claimed invention and the reference disclosure. *See Scripps Clinic and Research Foundation v. Genentech, Inc.*, 18 U.S.P.Q. 841 (C.A.F.C. 1984).

Along these lines, anticipation requires the disclosure, in a cited reference, of each and every recitation, as set forth in the claims. *See Hodosh v. Block Drug Co.*, 229 U.S.P.Q. 182 (Fed. Cir. 1986); *Titanium Metals Corp. v. Banner*, 227 U.S.P.Q. 773 (Fed. Cir. 1985); *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 1 U.S.P.Q.2d 1081 (Fed. Cir. 1986); and *Akzo N.V. v. U.S. International Trade Commissioner*, 1 U.S.P.Q.2d 1081 (Fed. Cir. 1986).

The combination of Monser et al. and Marino does not disclose the present invention as recited in claims 23 and 24, which depend from claim 22, since, among other things, the combination does not suggest a group antenna that includes a plurality of antenna radiating elements each including a body that includes a rotationally-symmetrical surface having an axis of rotation substantially perpendicular to a ground plane a body having a surface, where the surface tapers toward an axis of rotation with increasing distance from a ground plane and the surface is covered with a metallic casing. Rather, Monser et al. suggests an antenna that includes

a plurality of individual supports and a spiral wire attached to the supports. Marino does not suggest a group antenna including a plurality of bodies each having a surface as recited in claim 22. The Examiner only cited Marino as suggesting isolating adjacent antenna elements. Such isolating means does not suggest the antenna bodies having the surface as recited in claim 22. Therefore, the combination of Monser et al. and Marino does not suggest the present invention as recited in claims 23 and 24, which depend from claim 22.

The combination of Monser et al. and Ohtsuka et al. does not suggest the present invention as recited in claims 25, 26, and 37, which depend from claim 22, since, among other things, the combination does not suggest a group antenna that includes a plurality of antenna radiating elements each including a body that includes a rotationally-symmetrical surface having an axis of rotation substantially perpendicular to the ground plane, wherein the surface has a shape that tapers toward the axis of rotation with increasing distance from the ground plane and is covered with a metallic casing. Rather, Monser et al. suggests an antenna that includes a plurality of individual supports and a spiral wire attached to the supports. Marino does not suggest a group antenna including a plurality of bodies each having a surface as recited in claim 22. The Examiner only cited Ohtsuka et al. as suggesting securing antenna elements with screws. Securing the spiral wound wire suggested by Monser et al. with screws would not suggest the antenna bodies with the surface recited in claim 22, from which claims 25, 26, and 37 depend. Therefore, the combination of Monser et al. and Ohtsuka et al. does not suggest the present invention as recited in claims 25, 26, and 37, which depend from claim 22.

Monser et al. does not suggest the present invention as recited in claims 28-34, 36, 39-42,

and 44, which depend from claim 22, since, among other things, Monser et al. does not suggest a group antenna that includes a plurality of antenna radiating elements each including a body that includes a rotationally-symmetrical surface having an axis of rotation substantially perpendicular to the ground plane, wherein the surface has a shape that tapers toward the axis of rotation with increasing distance from the ground plane and is covered with a metallic casing. Rather, Monser et al. suggests an antenna that includes a plurality of individual supports and a spiral wire attached to the supports. Marino does not suggest a group antenna including a plurality of bodies each having a surface as recited in claim 22. Therefore, the combination of Monser et al. and Marino does not suggest the present invention as recited in claims 28-34, 36, 39-42, and 44.

In view of the above, the references relied upon in the office action, whether considered alone or in combination, do not disclose or suggest patentable features of the present invention. Therefore, the references relied upon in the office action, whether considered alone or in combination, do not anticipate the present invention or make the present invention obvious. Accordingly, Applicant respectfully requests withdrawal of the rejections based upon the cited references.

In view of the above, Applicant submits that this case is now in condition for allowance and respectfully requests favorable reconsideration of this case and early issuance of the Notice of Allowance.

If an interview would advance the prosecution of this case, Applicant respectfully urges the Examiner to contact the undersigned at the telephone number listed below.

The undersigned authorizes the Commissioner to charge fee insufficiency and credit overpayment associated with this communication to Deposit Account No. 22-0261.

Respectfully submitted,

Date: 1/24/08



Eric J. Franklin, Reg. No. 37,134
Attorney for Applicant
Venable LLP
575 7th Street, NW
Washington, DC 20004
Telephone: 202-344-4936